

34. The variant of claim 30, wherein said variant further comprises amino acid substitutions of a cysteine at positions equivalent to positions 349 and 428 in SEQ ID NO:3.

35. An isolated alpha-amylase enzyme comprising an amino acid sequence having an amino acid sequence which has at least 80% homology to SEQ ID NO:3, modified by having deletions at positions equivalent to positions 179 and 180 in SEQ ID NO:3.

36. The alpha-amylase enzyme of claim 35, wherein said alpha-amylase enzyme is further modified by having amino acid substitutions of a cysteine at positions equivalent to 349 and 428 in SEQ ID NO:3.

37. The alpha-amylase of claim 35, wherein said alpha-amylase has an amino acid sequence which has at least 85% homology to SEQ ID NO:3.

38. The alpha-amylase of claim 35, wherein said alpha-amylase has an amino acid sequence which has at least 90% homology to SEQ ID NO:3.

39. The alpha-amylase of claim 35, wherein said alpha-amylase has an amino acid sequence which has at least 95% homology to SEQ ID NO:3.

40. A process for producing an alpha-amylase enzyme, said process comprising:

a) cultivating a host cell having a nucleic acid sequence encoding an alpha-amylase enzyme, said alpha-amylase enzyme comprising an amino acid sequence having at least 80% homology to SEQ ID NO:3 and wherein said alpha-amylase enzyme is modified by having deletions at positions equivalent to positions 179 and 180 in SEQ ID NO:3, wherein said cultivating is performed under conditions conducive to produce the alpha-amylase enzyme, and

b) recovering the alpha-amylase from the culture.

41. The process of claim 40, wherein said alpha-amylase enzyme is further modified by having amino acid substitutions of a cysteine at positions equivalent to positions 349 and 428 in SEQ ID NO:3.